

>>>>>>>><<<<<<<<<

THE PLOTTER

CLACKAMAS COUNTY AREA T/S

USERS GROUP
NEWS LETTER

VOLUME 5 **** NUMBER 8
 **

AUGUST 1987

EDITED BY: DICK WAGNER
CHAIRMAN: SYD WYNCOOP
V/CHAIRMAN: DICK WAGNER
SECRETARY: JACK ARMSTRONG
TREASURER: ROD GOWEN
PR OFFICER: BOB EVANS
LIBRARIAN: JAMES EDWARDS

MEETING

The AUGUST meeting will be:

on: FRI., AUGUST 14, 1987

at: 7:30 P.M.

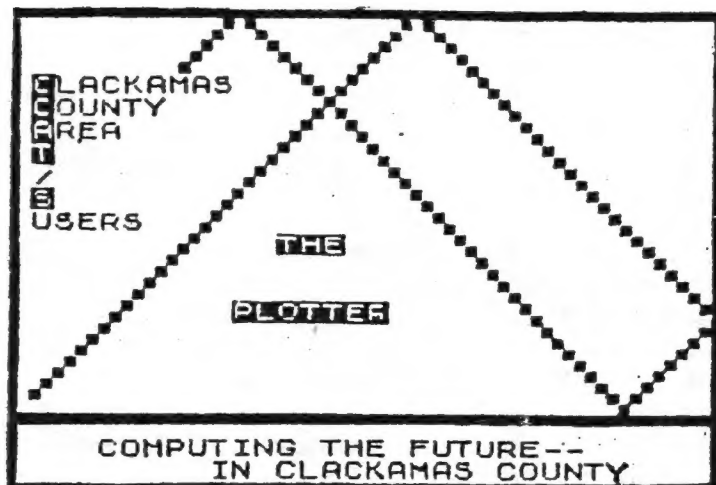
in: COMMUNITY ROOM

FAR WEST FEDERAL S & L

OREGON CITY SHOPPING CENTER

WHAT YOU WILL FIND IN THIS ISSUE

MEETINGS-----	PAGE 1
CHAIRMAN'S CORNER-----	PAGE 1
SECRETARY'S SECRETS-----	PAGE 2
FROM THE EDITOR'S DESK ---	PAGE 2
CONTINUED-----	PAGE 3
MIND READER PROGRAM-----	PAGE 3
WIND CHILL CHART PROGRAM--	PAGE 4
CONTINUED-----	PAGE 5
PRINT USING PROGRAM-----	PAGE 6
CONTINUED-----	PAGE 8
BITS & BYTES-----	PAGE 7
COLOR-GRAY SCALE-----	PAGE 8
AD/MEMBERSHIP/SUB. RATES---	PAGE 8



Chairman's Corner

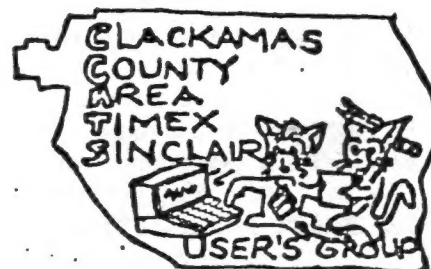
Hello all! I trust you are having a great summer. However, if you are like me, you are not doing much at the keyboard.

For those that missed our meeting in June, we had an excellent follow-up movie on the topic of 'growing chips', as was explained by Dennis about a year ago. You should have been there!

In case you forgot, Dick Wagner is our next guest speaker. I still have a spot open for you as the main attraction in Sept, or whenever. If you don't want to be the center of attention, at least be there!

A few more Sinclair specific magazines have bit the dust this year. We have an excellent resource library that is not getting much use and may soon be our only, or best source of information. Use it, but make sure you return what you borrow as a few items have disappeared.

I guess that's enough rambling for this month. Let's go have some fun!



SECRETARY'S SECRETS

by Jack Armstrong

Chairman Syd Wyncoop called the club meeting to order for May at 7:40. He noted that the library is still not getting as much use as it deserves. Syd asked for the membership total from Rod, who gave a paid-up total of 27. D. Lewis made mention of the CPM swapmeet coming on June 9. Syd mentioned seeing Joe Bartell at a meet. He has a MSDOS for the QL or any 68000 based computer. Mike Carver added comments as well as Rod Gowen. A new member, Forrest Zuercher brought up problems he is having in devising a program that he will use in his Machinist trade. It is one that will solve angle unknown dimensions if two knowns are fed in. Rod brought a magazine display since all of his stock had not yet been unpacked from the Computer Fest. The balance of the meeting was taken up by Rod and Tim Woods in describing the Computer Fest in Indianapolis. Tim and Rod took turns in describing the fest and what they saw and participated in during the course of the weekend. Questions were asked and answered until the meeting was adjourned at 10:00 p.m.

The June meet came to order at 7:45 chaired by Syd Wyncoop. Copies of the May minutes were handed out. Syd noted that there would be no July meeting as is the usual custom and after a brief discussion the meeting went on as Rod showed Videos of the Cincinnati '86 Fest and the Indianapolis '87 Fest. Rod did a running commentary of the people shown and their names and roles in the Timex Community. It was very interesting and he then showed a Video he taped from PBS about chip manufacturing SEED TO SEMICONDUCTOR whis was also very interesting. There was no new business for discussion, but Rod did discuss briefly the new Larken Disc System and the features it contained that were special such as the NMI Instant Save feature which will save a non-breakable program. He also had some new SW & HW including covers for the 2068,1000,1500,2040 and to come: the QL. The group adjourned at 9:00.

FROM THE EDITOR'S DESK

My recent experience with a fellow 2068 user may be of interest-- it was to me.

Two days before leaving on a 3 week trip to Boston via air and then into Nova Scotia and other Canadian areas, I received a letter from Bill Jones (see The Plotter, June issue). I had informed him of our projected vacation plans. He suggested a visit to a Henry Hall in Halifax, who among things was having trouble to get a Radio Shack #105 printer to operate with a Oliger printer interface. It so happens that we both were working with the Smart Text program Bill has developed.

With an unlisted phone and being in a strange city, I approached the hostess of the Bed and Breakfast location we were staying in and finally determined our direction of travel and streets to locate Henry's home. We gambled that the Halls would be home that Saturday night and away we went. Luck was with us as Henry just drove up as we were leaving our car. An explanation of who we were and how we happened to be there "broke the ice" and we were soon discussing our various computer problems.

Henry did have his printer working by this time but not entirely satisfactory with the code situation. I'm all for working out the codes in an LPRINT program before becoming involved in a strange program and my ideas maybe helped. Anyway, I had additional thoughts on the matter the next day and got a letter into the mail before we left town.

I learned that there are 3 TS 2068 users in the Halifax area, each with a different interest for using the computer. Henry was anxious to use the word processor feature of Smart Text to produce a column for a Canadian marine magazine.

Continued on page 3

XX

ARE YOU GOING?

=====

WE NEED TO KNOW!

WHAT?

THE GREAT NW TS MINI-FAIR!

WHERE?

SEATTLE, WASHINGTON

WHEN?

SATURDAY, SEPT. 26TH, 1987

9:00 AM TO 6:00 PM

=====

YOU ARE INVITED TO THE SECOND ANNUAL GREAT NW TS MINI-FAIR
TO BE HELD IN SEATTLE, WA, ON SEPTEMBER 26, 1987.

WE NEED TO KNOW IF YOU PLAN TO ATTEND TO MAKE SURE THAT WE
MAKE THE APPROPRIATE PLANS.

TICKETS WILL BE \$3.00 PER PERSON AT THE DOOR, CHILDREN UNDER
12 WILL BE ADMITTED FREE WHEN ACCOMPANIED BY PARENT.

THERE WILL BE LOTS TO SEE AND DO FOR 9 BIG HOURS!

+++++

WE WILL HAVE MINI-SEMINARS ON MANY SUBJECTS:
68000 ARCHITECTURE-Z80 MACHINE CODE-DISK DRIVE SYSTEMS
ARCHIVE USAGE ON THE QL-TELECOMMUNICATIONS
AND MANY MORE!

+++++

THERE WILL BE DEMONSTRATIONS OF:
THE LARKEN DISK SYSTEM-THE AERCO DISK SYSTEM-THE QL
MANY SOFTWARE TITLES-MANY OTHER HARDWARE ITEMS

+++++

THERE WILL BE A FOOD CONCESSION ON THE PREMISES.

MUCH-MUCH MORE!

=====

IF YOU THINK YOU WILL BE ABLE TO ATTEND, AND, IF YOU LIVE IN
THE PORTLAND/VANCOUVER, WA AREA ESPECIALLY, WE WANT TO KNOW
IF YOU MIGHT LIKE TO GO UP AS A GROUP WITH THE CCAT/S-PATS
USER GROUP. WE ARE PLANNING TO RENT A BUS OR VANS, DEPENDING
ON THE NUMBER OF PEOPLE WHO EXPRESS AN INTEREST IN GOING.
IF YOU LIVE OUTSIDE THIS AREA AND STILL WANT TO ATTEND, WE
WOULD APPRECIATE IT IF YOU WOULD FILL IN THE PRE-REGISTRATION
FORM BELOW AND RETURN IT TO US NO LATER THAN AUGUST 15TH, 1987.
THANK YOU VERY MUCH.

=====

PLEASE PRINT OR TYPE: (RETURN FORM TO CCAT/S ADDRSS ON N/L)

NAME: _____

ADDRESS: _____

CITY, STATE: _____ ZIP: _____

NUMBER OF PEOPLE IN YOUR PARTY: _____

=====

ARE YOU GOING?

WE MEET IN 1982

THE GREAT 1982 MEETING

SEATTLE, WASHINGTON

SATURDAY, MAY 1, 1982

WE ARE INVITED TO THE SECOND ANNUAL GREAT MEETING TO BE HELD IN SEATTLE, WA, ON SATURDAY, MAY 1, 1982. WE NEED TO KNOW IF YOU PLAN TO ATTEND TO MAKE SURE THAT WE HAVE THE APPROPRIATE PLANS. TICKETS WILL BE \$2.00 PER PERSON AT THE DOOR. CHILDREN UNDER 12 WILL BE ADMITTED FREE WHEN ACCOMPANIED BY A PARENT.

THERE WILL BE LOTS TO SEE AND DO FOR A DAY LONG.

WE WILL HAVE MINI DEMOS IN MANY SUBJECTS: 8086 ARCHITECTURE-8086 MACHINE CODE DRIVE & TEND ARCHIVE USAGE ON THE 80-TECHNICALITIES AND MANY MORE!

THERE WILL BE DEMONSTRATIONS IN THE LARKEN DISK SYSTEM- THE 8080 DISK SYSTEM (MANY SOFTWARE TITLED MANY OTHER HARDWARE ITEMS)

THERE WILL BE A FOOD CONFESSION ON THE MEETING

IF YOU THINK YOU WILL BE ABLE TO ATTEND, PLEASE LET US KNOW. IF YOU MIGHT LIKE TO GO BE A GROUP FOR THE DAY. IF YOU ARE PLANNING TO BRING A BOY OR GIRL, PLEASE LET US KNOW. ON THE NUMBER OF PEOPLE WHO EXPRESS AN INTEREST IN ATTENDING. IF YOU LIVE OUTSIDE THE AREA AND STILL WANT TO ATTEND, WE WOULD APPRECIATE IT IF YOU WOULD FILL IN THE FORM BELOW AND RETURN IT TO US NO LATER THAN 10:00 AM. THANKS YOU VERY MUCH.

PLEASE PRINT OR TYPE: RETURN FORM TO: [Address]
NAME: _____
ADDRESS: _____
CITY, STATE: _____
NUMBER OF PEOPLE IN YOUR PARTY: _____

When problems come up for isolated computer users they cannot grab the phone and make a local call for help. Henry indicated that his phone bill sky rocketed every time he bought new hardware or major software and at times was rather sickening. Does this suggest that we have it pretty good in our user group? Indeed we are fortunate to participate as a group and to be able to help each other.

As a sequel to this story, after returning home I received a letter from Henry indicating that progress was slow on the printer code problem for lack of time, and that he just might be able to get onto Rod's BBS when he worked night shift. I had left a PLOTTER with him and he had read about this. With a 4 hour time difference (Atlantic time) it looks like he could make contact.

I have since learned that there is a healthy duty on imports into Canada. How lucky we are with such a wide source of material and mostly at reasonable prices.

MIND READER

The COURT JESTER is none other than new member Bill Dunlop, dba THE MAGIC CAVE. Maybe Bill has some more good programs up his sleeve!

```

5 REM *****
10 REM * ZX-PERT MIND READER *
20 REM * BY THE COURT JESTER *
25 REM *****
30 LET D=INT (PI)
40 LET Q=D*D
50 LET X=D-D
60 PRINT "I WOULD LIKE FOR YOU
TO WRITE DOWN, ON PAPER, ANY
NUMBER OF MORE THAN THREE DIGI
TS. OK??"
70 PRINT
80 PRINT "PRESS "ENTER" TO G
O ON."
90 PRINT
100 PAUSE 4E4
110 PRINT "NOW ADD THE DIGITS U
P ALONG THE NUMBER LIKE THIS, 12
3 WOULD BE 1+2+3 ETC. AND WRITE
THIS NUMBERBELOW YOUR ORIGINAL N
UMBER SO THAT YOU CAN SUBTRAC
T."
120 PRINT

```

```

130 PRINT "IT SHOULD LOOK A BIT
LIKE THIS",,"123 (1+2+3=6)",,"
-6",,"_--"
140 PRINT
150 PRINT "PRESS "ENTER" TO G
O ON."
160 PAUSE 4E4
170 CLS
180 PRINT "NOW AFTER YOU SUBTRA
CT, YOU CAN MULTIPLY THE NEW ANS
WER BY ANY NUMBER ( NOT ZERO )
AND WE WILL USE THIS NUMBER."
190 PRINT
200 PRINT "IT SHOULD LOOK A LIT
TLE LIKE",,"123",,"- 6",,"_--",,"
'117",,"X 2",,"_--",,"234"
210 PRINT
220 PRINT "PRESS "ENTER" TO G
O ON."
230 PAUSE 4E4
240 CLS
250 PRINT "NOW I WOULD LIKE YOU
TO CIRCLE ANY SINGLE DIGIT IN
THIS LAST NUMBER, BUT NOT A ZE
ROAS THAT IS NOT REALLY A NUMB
ER. OK??"
260 PRINT
270 PRINT "NOW GIVE ME ALL OF T
HE UNCIRCLED DIGITS IN ANY MIXED
ORDER",,"THEN PRESS "ENTER" AGAI
N."
280 INPUT A$
290 FOR Z=D/D TO LEN A$
300 LET X=X+VAL A$(Z)
310 IF X>Q OR X=Q THEN LET X=X-
Q
320 NEXT Z
330 PRINT ,,"NOW THINK YOUR CIR
CLED NUMBER CLEARLY!"
340 PAUSE 120
350 CLS
360 PRINT "YOU CIRCLED THE ";Q-
X,"AM I RIGHT ? Y OR N"
370 INPUT R$
380 PRINT
390 IF R$(1)="N" THEN PRINT "I
SUGGEST THAT YOU LET ME DO YO
UR MATH IN THE FUTURE AS YOU MA
DE A MISTAKE IN YOUR MATH!"
400 LET R$=""
410 PRINT "DO YOU WANT TO TRY A
GAIN? Y OR N"
420 INPUT R$
430 IF R$(1)="N" THEN STOP
450 GO TO 50

```


WIND CHILL CHART

Dick F. Wagner

No doubt you have seen wind chill charts around but how about making one of your own. You can with this simple program that does all of the calculating and column spacing without an effort on your part. It works on your 2068 and large printer, and if you can find that program to rotate printing 90 degrees it will work on a 2040 printer.

The theory of wind chill is simply that when a wind blows it removes body heat faster than when there is no wind. Some years ago the National Weather Service developed formulas to calculate the same temperature that a person would "feel" when a wind blows. For example, a dry bulb or normal thermometer reading of 5 degrees F. would feel like about -14 F. with a 10 MPH wind. Now, I may not agree with this but this has been determined to be about right for many people. Remember that wind chill applies to us humans and that a chunk of concrete will never be less than dry bulb temperature.

The formulas used by this program converts wind velocity in MPH to meters/second, converts F. readings to C. values, and calculates heat loss to kg cal/m²/Hr. How nice that it does it for us!

There are some unique program steps involved in obtaining a nice tabular print-out and without a lot of TABs and PRINT ATs and column spacing calculating. Because of this a description of what most lines do is included. Let it be known most of it is not of my programming. See another article in this issue about PRINT USING.

This program is fitted to my AXIOM printer but changes are simple to make as only Pica, condensed, and

expanded modes are used. Some programming is common to the Oliger DOS but that is no problem.

Line 1 sets the computer to a large printer. (Oliger system uses 0, or T for 2040)
Line 40 defines PRINT USING subroutines at line numbers 1000 and 2000
Line 50 A\$ and B\$ are used in setting the desired length of number printing plus spaces, also last column spacing.
Line 53 Oliger system for printer codes. This line is Pica to return printer normal. I put it in because of programming trials. Leave it out if you wish. Printer finishes in condensed.
Line 55 sets printer to expanded.
Line 60 cancel expanded mode.
Line 70 set printer to condensed.
Line 120 TAB would not work right until set this way.
Line 133 assign T to X1 for PRINT USING A.
Line 135 send subroutine to print in 5 character format RIGHT JUSTIFIED.
Line 140 print dry bulb temps.
Line 160 print the two MPH words.
Line 170 Start of MPH columns.
Line 173 assign V to X2 for use in PUSING B.
Line 175 send to PUSING B subroutine.
Line 180 sets the left TAB reference for printing the whole table.
Line 190 start temp. calculating and printing.
Line 195 assign T to X1.
Line 200 convert MPH to m/s.
Line 210 convert F. to C.
Line 220-240 calculate heat loss and round off.
Line 245 send to subroutine PUSING A for conversion to PRINT USING type display.
Line 250 print calculations in proper order and columns.
Line 265 send to subroutine PUSING B for last column printing.

Continued on page 5

Lines 1000-2050 see article on
PRINT USING.

Some changes will be necessary for each kind of printer. See your printer manual for codes Pica, expanded Pica, and compressed printing. I used about 132 (16 1/2). Note that all printing except the title is compressed print so my TABs and program should be OK as is. If for some reason the table does not align properly with the MPH headings just shift these TABs.

For TS 1000/1500 users just follow the guide lines in the article 'PRINT USING'.

Reference: Microcomputing magazine, Nov. 1983 'Check That Chill', Mark C. Worley.

Converting To Timex Sinclair Basic by Stuart L. Bird, Wayne Green Publications.

Here is the program:

```

1 LET /P=0
40 LET PUSING A=1000: LET PUSI
NG B=2000
50 LET A$="#####": LET B$="###
##"
53 OUT 127,27: OUT 127,54: REM
Pica
55 OUT 127,27: OUT 127,14: LPR
INT TAB 12;"WIND-CHILL CHART"
60 OUT 127,27: OUT 127,15
70 LPRINT : OUT 127,27: OUT 12
7,61: CLS
80 PRINT "Calculating & Printi
ng WIND-CHILL"
110 LPRINT TAB 57;"DRY-BULB TEM
PERATURE"
120 LPRINT TAB 21;
130 FOR T=45 TO -40 STEP -5
133 LET X1=T
135 GO SUB PUSING A
140 LPRINT X$;
150 NEXT T: LPRINT
160 LPRINT TAB 19;"MPH";TAB 114
;"MPH"
170 FOR V=5 TO 60 STEP 5
173 LET X2=V
175 GO SUB PUSING B
180 LPRINT TAB 16;X$;
190 FOR T=45 TO -40 STEP -5
195 LET X1=T
200 LET V1=(V+1609.35)/3600
210 LET TC=33-((T-32)*(5/9))
220 LET H=(10.45+(10*SQR V1))-V1
)+TC
230 LET X=H-17.1375
240 LET X1=90-(X/12.3): LET X1=
INT (((X1+10)+5)/10)
245 GO SUB PUSING A
250 LPRINT X$;
260 NEXT T

```

```

265 GO SUB PUSING B
270 LPRINT X$
280 NEXT V
999 REM CONVERT PUSIN A FOR ###
##
1000 LET AL=LEN A$
1010 LET ID=0
1020 LET X$=STR$ INT X1
1030 FOR J=1 TO AL-LEN X$
1040 LET X$=CHR$ 32+X$
1050 NEXT J
1060 RETURN
1999 REM CONVERT PUSING FOR ####
#
2000 LET BL=LEN B$
2010 LET ID=0
2020 LET X$=STR$ INT X2
2030 FOR J=1 TO BL-LEN X$
2040 LET X$=CHR$ 32+X$
2050 NEXT J
2060 RETURN

```

WIND-CHILL CHART

DRY-BULB TEMPERATURE																		
45	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	MPH
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	100
5	10	15	20															

PRINT USING

Dick F. Wagner

The TS 1000, 1500, and 2068 computers do not support this function but many forms of BASIC do. I have had no experience with this function but have noticed its use in some programs so decided it warranted investigating.

There appears to be more than one form of PRINT USING. The simplest establishes the form for printing numbers, right justified. The program contains a line such as 10 A\$="#####" where PRINT USING is invoked with a line like 100 LPRINT PRINT USING A\$, T. This will print the number assigned to T. If T is 3 digits long then 2 spaces are printed in front of the 3 digits. A number larger than that assigned to A\$ will not be controlled.

Some forms of PRINT USING will properly place a decimal point as defined by A\$, or add a \$ sign in front of all numbers as 10 A\$="581.7" and 100 LPRINT PRINT USING A\$###.##. This will display \$581.70.

Using Sinclair methods we can develop a subroutine that will simulate some of these forms of PRINT USING. For the simplest use to right justify a series of numbers we can set it up this way:

```
10 LET PRINTUSING=2200
100 READ A
120 PRINT A
130 IF A<>999 THEN GO TO 100
140 PRINT : RESTORE
150 READ A
160 LET I$="#####"
170 LET XI=A
180 GO SUB PRINTUSING
190 PRINT X$
200 LPRINT X$
215 IF A<>999 THEN GO TO 150
220 DATA 1,50,100.1,1000,12.346
,1023.99,1.1,.0345,999
2200 LET IL=LEN I$
2220 LET ID=0
2290 LET X$=STR$ INT XI
2430 FOR J=1 TO IL-LEN X$
2440 LET X$=CHR$ 32+X$
2450 NEXT J
2490 RETURN
```

This prints DATA, dropping all digits right of the decimal point, and right justifies. To print the numbers in DATA to two decimal places, change lines 130 and 2290 and add lines 2230, 2240, 2270, 2280, 2390.

```
10 LET PRINTUSING=2200
100 READ A
120 PRINT A
130 IF A<>999 THEN GO TO 100
140 PRINT : RESTORE
150 READ A
160 LET I$="#####"
170 LET XI=A
180 GO SUB PRINTUSING
200 LPRINT X$
210 IF A<>999 THEN GO TO 150
2200 LET IL=LEN I$
2220 LET ID=0
2230 FOR J=1 TO IL
2240 LET J$=I$(J)
2270 IF J$=CHR$ 46 THEN LET ID=L
EN I$-J
2280 NEXT J
2290 LET X$=STR$ INT (ABS XI*10+
ID)
2300 LET XD=LEN X$-ID
2310 FOR J=0 TO -XD
2320 LET X$="0"+X$
2330 NEXT J
2380 LET XD=LEN X$-ID
2390 IF ID>0 THEN LET X$=X$( TO
XD)+". "+X$(XD+1 TO )
2430 FOR J=1 TO IL-LEN X$
2440 LET X$=CHR$ 32+X$
2450 NEXT J
2490 RETURN
```

For the TS 1000 & 1500 computers use the following program to allow inputting numbers such as are used in the DATA statement. Lines 2200-2490 are the same except for 2440 where 32 (space) is changed to 26, 2270 where CHR\$ 46 (.) is changed to '.', and 2290 which is to be changed as:

```
2290 LET X$=STR$ INT(ABS XI*10**ID)
```

To duplicate the first program just change line 170 so I\$='????'.

```
10 LET PRINTUSING=2200
100 INPUT A
120 PRINT A
130 IF A<>999 THEN GO TO 100
160 LET I$="?????"
170 LET XI=A
180 GO SUB PRINTUSING
200 LPRINT X$
2200 LET IL=LEN I$
2220 LET ID=0
2230 FOR J=1 TO IL
2240 LET J$=I$(J)
2270 IF J$="." THEN LET ID=LEN I
$-J
2280 NEXT J
2290 LET X$=STR$ INT (ABS XI*10+
ID)
```


BITS & BYTES

by: ROD GOWEN

Heard any TS related news lately? Did you get any information in the mail from other users, user groups, or vendors that may be of interest to our readers? If so, why not share it with us? We need all of the help that we can get. Please send any info that you might have to: Rod Gowen, C/O CCAT/S, 1419 1/2 7th Street, Oregon City, OR 97045, or, phone in at: 503/655-7484, 10 AM- 10 PM weekdays. I know that the entire user group will appreciate it!

THE GREAT NW TS MINI-FAIR is fast approaching! A couple of months ago this was just a glimmer of an idea and now it is becoming a reality! We hope that a LOT of you will be able to attend. It is scheduled for the 26th of September, which is a Saturday. I am sure that during its 9 hours you will find something of interest to you. There will be demos of a LOT of TS hardware and software in 1 room. There are at least 9 mini seminars scheduled at this time with the possibility of 1 more. These 30-45 minute talks will cover such subjects as: TELECOMMUNICATIONS-DISK DRIVE SYSTEMS-286 MACHINE CODE-68000 CPU OPERATION-ARCHIVE DATA BASE USE- AND MUCH MORE. I am sure that we will all find at least 1 that will spark our interest! These seminars are going to be video-taped and the tapes will be available at a very reasonable cost so that you can have your own copy for future reference or for your user groups library. There will be a food concession so we don't get too hungry. The Fair is being sponsored in part by TIME DESIGNS MAGAZINE and RMG ENTERPRISES of our own group. The host group will be SEATUG, the Seattle Timex User Group. The food concession is going to be handled by the Vashon Island, WA, users group. We have had a lot of interest in this, hopefully to be, annual event. There will be at least 1 and possibly 2 Canadian groups represented there as well as at least 2 and maybe 3 software and hardware producer/dealers from Canada. We have a total of 6 dealer/producers lined up to be there as of this writing. These include: TIME

DESIGNS MAGAZINE-RMG ENTERPRISES-EXECUTIVE WORKSHOP-S&K ENTERPRISES-WEYMIL CORP.-META MEDIA-AND POSSIBLY ARROW SOFTWARE AND SILICON MOUNTAIN SOFTWARE. We think that there will be quite a lot of things to check out while you are there. We hope that you will put that day aside and try to make it to the Fair! By the way, our group is trying to set up either a bus or a van or two to make the trip as a group. This would save a lot of people from having to drive. If you are interested in going in this group, PLEASE- fill in and return the form in this issue of The Plotter.

RUMOR DEPARTMENT-tells us that there is a rumor in the wind that AMSTRAD is seriously considering the re-introduction of the QL to the market place. A couple of U.S. dealers got on the phone and contacted AMSTRAD in England and the company would neither confirm or deny this rumor. They have been wanting to put out a 16/32 bit machine but the R&D for a new machine concept is VERY expensive and they already own a good one! If they do put it out, it will sport a 3" disk drive as standard built-in hardware.

SHOEN,-the company in Europe that put out the replacement keyboard for the QL will release an AT STYLE keyboard for the QL in about 1 month. The new keyboard will sell for about \$150.00 U.S..

QL WARRANTY-has been changed. If you purchase a new unit now, you will get only a 30 day warranty. Don't feel bad though, the poor dealers only get 14 days to exchange defective units!

RMG ENTERPRISES-has added over 30 new products in the past 60 days! Who says there is no support for the TS line of computers? RMG also has had a nice review of ARCHIVE MASTER, the new book from EXECUTIVE WORKSHOP of our own group, run in COMPUTER SHOPPER MAGAZINE. It was nice to see that almost the entire TS SURVIVORS' COLUMN was devoted to this book in the AUG. '87 issue.

OUT OF SPACE AGAIN? SEE YOU NEXT TIME!

XX

Continued from page 6

```

2300 LET XD=LEN X$-ID
2310 FOR J=0 TO -XD
2320 LET X$="0"+X$
2330 NEXT J
2380 LET XD=LEN X$-ID
2390 IF ID>0 THEN LET X$=X$( TO
XD)+". "+X$(XD+1 TO )
2430 FOR J=1 TO IL-LEN X$
2440 LET X$=CHR$ 26+X$
2450 NEXT J
2490 RETURN

```

COLOR-GRAY SCALE
 POKE numbers 1-64 into 23693
 with a FOR-NEXT loop to get all
 colors/grays.
 To get BRIGHT add 64 to each
 number, FLASH add 128, and to-
 gether add 192.

For readers wishing to investigate
 more PRINT USING forms plus many
 other conversions To Sinclair Basic
 I suggest obtaining the book,
CONVERTING TO TIMEX SINCLAIR BASIC
 by Stuart L. Bird, published by
 Wayne Green Publications.

COLOR-GRAY SCALE

!	!		PAPER								!	
!	!		0	1	2	3	4	5	6	7	!	

!	!	0	!	-	8	16	24	32	40	48	56	!
!	!	1	!	1	-	17	25	33	41	49	57	!
!	!	2	!	2	10	-	26	34	42	50	58	!
!	INK	3	!	3	11	19	-	35	43	51	59	!
!	!	4	!	4	12	20	28	-	44	52	60	!
!	!	5	!	5	13	21	29	37	45	53	61	!
!	!	6	!	6	14	22	30	38	46	54	62	!
!	!	7	!	7	15	23	31	39	47	55	-	!

SUBSCRIPTION RATES

FREE SUBSCRIPTION WITH PAID
 CCAT/S MEMBERSHIP-\$15.00/YR
 NON-MEMBER RATE - \$ 8.50/YR

PLACE YOUR AD HERE

AD RATES

FOUR LINE CLASSIFIED FREE
 WITH MEMBERSHIP
 \$.50 / LINE
 \$ 5.00 / 1/4 PAGE
 \$ 8.00 / 1/2 PAGE
 \$ 15.00 / FULL PAGE

ALL AD COPY MUST BE IN BY
 THE 10TH OF THE MONTH PRIOR
 TO THE MONTH AD IS TO RUN.

-8-

CCAT/S

1419 1/2 7TH Street
 Oregon City, OR 97045

ROD GOWEN (TREASURER)
 1419 1/2 7TH STREET
 OREGON CITY, OR 97045
 A0003:12(87/ML